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SOI CASTLE SHANNON BLVD./PITTSBURGH, PA./ 2 (412) 341-7470

June 26, 1978

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Mr. Ron Putnam
Manufacturing Engineering Manager
Marlin Rockwell Division of TRW
Woodford Avenue
Plainville, Connecticut 06062

Dear Mr. Putnam:

The progress of the lagoon project has taken a definitive turn for the better. As you can see from the following sample data the lagoon appears to have finally equalized insofar as mixing is concerned and the oil content is now dropping rapidly. From a high reading May 16, 1978 of 849.8 mg/l oil to a low reading June 15, 1978 of 412 mg/l represents an overall drop of 51%. In general it appears the oil content is now dropping at the approximate rate of 50 mg/l per week. If this rate continues we should be in position to discharge between August 15 and September 1, 1978.

In view of the improving lagoon conditions and the time element, I am recommending a change in the original plan as outlined in my original cost estimate for this (1978) summer. Under the present circumstances it seems advisible to order 400 lbs of bacteria to be divided into 200 lbs of Phenobac and 200 lbs of Petrobac.

The N and E that was projected for the 4th through 12th week in the summer (1948) estimate need not be purchased. I think we have enough of these left to get through to August 15, 1978. However, I am increasing the bacteria requirement from 250 lbs to 400 lbs. The cost for these will be \$8,200.00 plus freight (\$25.00). However, we are eliminating by this \$6,500.00 from the previously estimated totals for the 4 to 12 week. (See attached copy of original estimate). In addition, engineering costs and lab tests are running under the estimate. So, on balance, this proposed change should not cause an overrun of the original estimate exceeding \$1,700.00 at the outside. And may cause no overrun depending upon the course of events concerning engineering and lab time.

The current financial status to June 23, 1978, of the summer contract (without expenses) is as follows:

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(April, May, to June 23, 1978)

Technician Time	-	\$ 2,412.50
Polybac Products	_	14,000.00
Lab Analysis		270.00
Freight	-	116.20

TOTAL - \$16,798.70

This does not include expenses or the testing on the Cimplus 48D. It does include other charges as shown for the first 8 weeks since re-start so it does show slightly more than the first three weeks of the original estimate would have forecast. However, it is still somewhat less than the first 8 weeks of operation would have been under the original plan.

The reason for changing the bacteria utilization is primarily to achieve a more rapid build up of bio-activity density in order to speed up cleaning the soil at the bottom and sides of the lagoon. Hopefully this will be accomplished by the time the water is ready for discharge.

Cordially yours,

Charles A. Caswell

CAC:rlf